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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/625,604	07/24/2003	Masashi Kamitamari	2185-0703P	7929

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EXAMINER	
DAVIS, BRIAN J	

ART UNIT	PAPER NUMBER
1621	

DATE MAILED: 04/08/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/625,604	KAMITAMARI ET AL.	
	Examiner	Art Unit	
	Brian J. Davis	1621	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on _____.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-9 and 12* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-9, 12* is/are rejected.

7)☒ Claim(s) *1 and 3* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☒ Certified copies of the priority documents have been received in Application No. 09/766,575.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date *7/24/03*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Claim Objections

Claims 1 and 3 are objected to because of the following informalities: the claims contain an obvious spelling error: "roup" (claim 1 line 9; claim 3 lines 12 and 17) Appropriate correction is required.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

The factual inquiries set forth in *Graham* **v.** *John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation

under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims 1-4 are rejected under 35 USC 103(a) over US 4,029,683 (Aratani et al.), cited by applicant in the IDS.

Applicant claims a series of optically active salicylideneaminoalcohol compounds of formula (1) and their synthesis.

Aratani teaches, inter alia, a series of chiral Schiff base compounds (column 1, line 51) and their synthesis (column 2, line 54).

Applicant distinguishes over the prior art in that a subset of the compounds of Aratani is claimed. However, one of ordinary skill in the art at the time of the invention would have found the instant set of compounds, as well as their synthesis, obvious motivated by the fact that both are generically taught by Aratani.

The instant compounds are most narrowly defined at substituents X_1 and X_2. That is, the sets of compounds when X_1=NO_2, X_2=H; X_1=X_2=Cl; or X_1=H, X_2=F.

Compound 22 of Aratani is the Br analog of applicant's compound when X_1=X_2=Cl. This is most easily seen by referring to the CAPLUS abstract of the Aratani patent where the compound structural diagrams are explicitly given. All halogens in this position are generically taught by Aratani (column 2 line 6).

In order for an invention to be obvious, two things must be found in the prior art: 1) the suggestion of the invention, and 2) the expectation of its success. *In re Vaeck*, 947 F2d 488, 492, 20 USPQ2d 1438, 1441 (Fed. Cir. 1991).

That the instant Cl compound is suggested by the homologous Br compound of the prior art, due to its similarity of structure, is clear from case law. *In re Druey*, 319 F.2d 237, 138 USPQ 39 (CCPA 1963); *In re Lohr*, 317 F.2d 388, 137 USPQ 548 (CCPA 1963). The expectation of success is derived from Aratani's generic teaching that all halogens are essentially equivalent in this position.

Thus, at least, applicant's compounds when X_1=X_2=Cl are obvious given the teachings of Aratani.

With respect to process claims, claims 3 and 4, the argument is identical i.e. that the instant process is homologous to that of Aranati (column 2 line 54). Focusing again on the instant Cl and homologous Br compounds, the reference teaches a homolog and contains a generic disclosure encompassing the instant compound. The obviousness of such a homologous process is supported by case law, since it is well established that consideration of a reference is not limited to the preferred embodiments or working

examples, but extends to the entire disclosure for what it fairly teaches to a person of ordinary skill in the art. *In re Boe*, 355 F2d 961, 148 USPQ 507, 510 (CCPA 1966); *In re Chapman*, 357 F2d 418, 148 USPQ 711 (CCPA 1966): *In re Meinhardt*, 392 F2d 273, 157 USPQ 270, 272 (CCPA 1968); *In re Lamberti*, 545 F2d 747, 750, 192 USPQ 279, 280 (CCPA 1976); *In re Fracalossi*, 681 F2d 792, 794, 215 USPQ 569, 570 (CCPA 1982); *In re Kaslow*, 707 F2d 1366, 1374, 217 USPQ 1089, 1095 (Fed. Cir. 1983).

Claims 5, 7-9 and 12 are also rejected under 35 USC 103(a) over US 4,029,683 (Aratani et al.).

Applicant claims a series of copper complexes and their synthesis.

Aratani teaches, inter alia, a series of copper complexes and their synthesis. The compounds are synthesized by reacting a Schiff base with a cupric salt such as cupric acetate (column 2 line 22). The solvent is then removed, the residue dissolved in benzene and washed with aqueous sodium bicarbonate. The organic layer is washed and dried, the solvent evaporated and the precipitate collected by filtration (column 2 line 46; Example 1B).

Applicant distinguishes over the prior art in that a subset of the compounds of Aratani is claimed. However, one of ordinary skill in the art at the time of the invention would have found the instant set of compounds, as well as their synthesis, obvious motivated by the fact that both are generically taught by Aratani.

As above, the instant compounds are most narrowly defined at substituents X_1 and X_2. That is, the sets of compounds when X_1=NO_2, X_2=H; X_1=X_2=Cl; or X_1=H, X_2=F.

The Cu complex of compound 22 of Aratani is the Br analog of applicant's compound when X_1=X_2=Cl. All halogens in this position are generically taught by Aratani (column 2 line 6).

In order for an invention to be obvious, two things must be found in the prior art: 1) the suggestion of the invention, and 2) the expectation of its success. *In re Vaeck*, 947 F2d 488, 492, 20 USPQ2d 1438, 1441 (Fed. Cir. 1991).

That the instant Cl compound is suggested by the homologous Br compound of the prior art, due to its similarity of structure, is clear from case law. *In re Druey*, 319 F.2d 237, 138 USPQ 39 (CCPA 1963); *In re Lohr*, 317 F.2d 388, 137 USPQ 548 (CCPA 1963). The expectation of success is derived from Aratani's generic teaching that all halogens are essentially equivalent in this position.

Thus, at least, applicant's compounds when X_1=X_2=Cl are obvious given the teachings of Aratani.

With respect to process claims, claims 7-9, the argument is identical i.e. that the instant process is homologous to that of Aranati. Focusing again on the instant Cl and homologous Br compounds, the reference teaches a homolog and contains a generic disclosure encompassing the instant compound. The obviousness of such a homologous process is supported by case law, since it is well established that consideration of a reference is not limited to the preferred embodiments or working examples, but extends to the entire disclosure for what it fairly teaches to a person of

ordinary skill in the art. *In re Boe*, 355 F2d 961, 148 USPQ 507, 510 (CCPA 1966); *In re Chapman*, 357 F2d 418, 148 USPQ 711 (CCPA 1966): *In re Meinhardt*, 392 F2d 273, 157 USPQ 270, 272 (CCPA 1968); *In re Lamberti*, 545 F2d 747, 750, 192 USPQ 279, 280 (CCPA 1976); *In re Fracalossi*, 681 F2d 792, 794, 215 USPQ 569, 570 (CCPA 1982); *In re Kaslow*, 707 F2d 1366, 1374, 217 USPQ 1089, 1095 (Fed. Cir. 1983).

With respect in particular to claim 5, the claim is still a product claim, and the product is taught by the cited prior art. With respect to claims 7-9, the instant claims contain 'open' claim language (...comprising...) which encompasses the presence of a base in the cited prior art. And with particular regard to claim 9 – absent unexpected results – the examiner considers this particular step, precipitation by cooling or the addition of a hydrocarbon solvent in the isolation of the crystals, a mere engineering expediency. There are any number of ways to isolate a solid precipitate from a solution and the choice of any one particular method, (cooling, evaporation, addition of a solvent of differing polarity, etc.) would be considered by the ordinary practitioner a choice, essentially, among equivalents – again, absent unexpected results.

The rejection of claims 6 under 35 USC 103(a) over US 4,029,690 (Aratani et al.), cite by applicant in the IDS.

Applicant claims an adduct of a chiral copper complex.

Aratani teaches, inter alia, a method for producing an optically active alkyl chrysanthemate (claim 1).

Applicant distinguishes over the prior art in that a subset of the compounds of Aratani is claimed. However, one of ordinary skill in the art at the time of the invention would have found the instant set of compounds, as well as their synthesis, obvious motivated by the fact that both are generically taught by Aratani.

As above, the instant compounds are most narrowly defined at substituents X_1 and X_2. That is, the sets of compounds when X_1=NO_2, X_2=H; X_1=X_2=Cl; or X_1=H, X_2=F.

The complex compound 22A of Aratani is the Br analog of applicant's compound when X_1=X_2=Cl. All halogens in this position are generically taught by Aratani (column 2 line 7).

In order for an invention to be obvious, two things must be found in the prior art: 1) the suggestion of the invention, and 2) the expectation of its success. *In re Vaeck*, 947 F2d 488, 492, 20 USPQ2d 1438, 1441 (Fed. Cir. 1991).

That the instant Cl compound is suggested by the homologous Br compound of the prior art, due to its similarity of structure, is clear from case law. *In re Druey*, 319 F.2d 237, 138 USPQ 39 (CCPA 1963); *In re Lohr*, 317 F.2d 388, 137 USPQ 548 (CCPA 1963). The expectation of success is derived from Aratani's generic teaching that all halogens are essentially equivalent in this position. The adduct is simply an intermediate in the prior art reaction of the diene, the diazo compound and the copper complex. That is, its formation is intrinsic to the prior art process.

Thus, at least, applicant's compounds when X_1=X_2=Cl are obvious given the teachings of Aratani.

Double Patenting

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970);and, *In re Thorington,* 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

Claims 5 and 12 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claim 1 of U.S. Patent No. 6,469,198. Although the conflicting claims are not identical, they are not patentably distinct from each other.

First, applicant is also advised that should claim 5 be found allowable, claim 12 will be objected to under 37 CFR 1.75 as being a substantial duplicate thereof. When two claims in an application are duplicates or else are so close in content that they both cover the same thing, despite a slight difference in wording, it is proper after allowing one claim to object to the other as being a substantial duplicate of the allowed claim. See MPEP § 706.03(k).

Instant claims 5 and 12 claim a chiral copper complex obtained by reacting the optically active salicylideneaminoalcohol compounds of formula (1) with a mono- or divalent copper complex. Claim 1 of the patent claims a chiral copper catalyst

composition obtained by reacting N-salicylideneaminoalcohol compounds (i.e. the instant set of salicylideneaminoalcohol compounds of formula (1)) with a mono- or divalent copper compound in an inert solvent. The only differences between the patented claim and the instant claims are: 1) the instant claims are dependent claims while the patented claim is an independent claim (i.e. the subject matter of the instant claims is distributed among more than one claim); and 2) the use of an inert solvent in the patented claim. However, the use of an inert solvent in the instant claims would have been obvious to the ordinary practitioner at the time of the invention, given that it is well known in the chemical arts that mono- and divalent copper compounds are salts and will require a solvent in order to dissociate them such that a reaction can take place.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Brian J. Davis whose telephone number is 571-272-0638. The examiner can normally be reached on 8:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Johann Richter can be reached on 571-272-0646. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

BRIAN DAVIS
PRIMARY EXAMINER

Brian J. Davis
April 1, 2005